

CLAIMS

1. A method for producing a type III antifreeze protein (AFP) which method comprises expressing in a fungal host cell which is deficient in protein glycosylation, a nucleic acid sequence encoding the AFP.
5
2. A method according to claim 1 wherein the fungal host cell is deficient in protein glycosylation by virtue of a mutation in one or more genes encoding enzymes involved in protein glycosylation.
10
3. A method according to claim 1 or claim 2 wherein the fungal cell is deficient in O-glycosylation.
15
4. A method according to any one of the preceding claims wherein the fungal cell is deficient in the activity of one or more protein mannosyl transferase enzymes.
- 20 5. A method according to any one of the preceding claims wherein the fungal cell is a yeast.
6. A method according to claim 5 wherein the yeast is a pmt1-deficient mutant strain.
25
7. A method according to claim 5 or claim 6 wherein the yeast is a pmt2-deficient mutant strain.
8. A method according to any one of claims 5 to 7 wherein the yeast is *Saccharomyces cerevisiae*.
30
9. A method according to any one of the preceding claims wherein the type III AFP is type III HPLC-12.

- 35 -

10. A composition comprising recombinant type III antifreeze protein (AFP) wherein from about 50% to 99% of the AFP is unglycosylated.

5

11. A composition according to claim 10 wherein the type III AFP is type III HPLC-12.